UNIVERSITETET I OSLO

Jobbnorge ID: 294728
Deadline: 01.03.2026
Website: http://www.uio.no/
Scope: Fulltime
Duration: Engagement

PhD Research Fellow in Solar Physics - Two to Three positions

About the position

Two to three positions as PhD Research Fellow in solar physics available at the Rosseland Centre for Solar Physics, Institute of Theoretical Astrophysics (ITA), University of Oslo.

The fellowship period is three years.

A fourth year may be considered, and it will involve 25 % of other career-promoting work. Other career-promoting work may consist of teaching, supervision, and/or research assistance. This is dependent upon the qualification of the applicant and the current needs of the department.

Starting date no later than **October 1, 2026**.

No one can be appointed for more than one PhD Research Fellowship period at the University of Oslo.

Place of work is at the Institute of Theoretical Astrophysics at Blindern, Oslo.

Job description

The two to three positions are connected to the Rosseland Centre for Solar Physics (RoCS) funded by the Research Council of Norway and the University of Oslo from November 1st, 2017. The primary goal of RoCS 10-year effort lies in understanding the workings of the energetic Sun. To attack this goal a concerted effort of numerical modelling, both fluid (extended MHD) and particle oriented, are combined with high quality observations taken at ground-based and space-based observatories to produce models of the active Sun. The group has an internationally leading competence in radiative transfer and radiative hydrodynamics. Observationally, the group has access to the Swedish 1-meter Solar Telescope (SST) on La Palma, to several satellites such as ESA's Solar Orbiter, NASA's IRIS and SDO, and in the near future MUSE. The group is a major user of local and national High-Performance Computing facilities.

RoCS, and with it the solar physics group at the University of Oslo, is known world-wide for its expertise in numerical simulations and observations of the solar atmosphere and thus offers an attractive work environment and access to world-class computational and observational infrastructure.

Each PhD position is associated with one specific research project, as summarised below. Candidates may apply to one, or (preferably) all of these positions through a single application, and should rank the positions in order of their preference in the cover letter. All applications will be reviewed in a joint selection process, taking into account the stated preferences of each candidate.

The available positions are dedicated to the following projects:

- OESE. The project is connected to the project "Origin and Evolution of Solar Erup-tions (OESE)" funded by the Research Council of Norway. The OESE project will study solar eruptions by combining high-resolution observations from the SST on La Palma and observations from telescopes in space such as Solar Orbiter, IRIS, and the upcoming MUSE mission. The supervisors will be prof. Luc Rouppe van der Voort and Dr. Reetika Joshi.
- AEPIC. This project focuses on advancing our hybrid PIC and MHD code to enable fully adaptable and self-consistent simulations of the solar atmosphere and solar flares. Both detailed particle physics and fluid dynamics as well as intricacies of coding will be part of this challenging project. The results will be first of its kind. Supervisor will be prof. Boris Gudiksen.
- Understanding the formation of dynamic spectra. This project will combine radia-tive MHD simulations, state-of-the-art spectral synthesis, and multi-instrument observations to get crucial insight on how to interpret the rich solar observations we obtain today. It can focus on different topics, from diagnostics with the upcom-ing SOLAR-C EUVST telescope, novel methods for radiative transfer, and data sci-ence techniques to interpret very large spectral datasets. The supervisor will be prof. Tiago M. D. Pereira.

What skills are important in this role?

The Faculty of Mathematics and Natural Sciences has a strategic ambition to be among Europe's leading communities for research, education and innovation. Candidates for these fellowships will be selected in accordance with this, and expected to be in the upper segment of their class with respect to academic credentials.

Required qualifications:

- Master's degree or equivalent in Astronomy/Astrophysics or a related discipline
- Foreign completed degree (M.Sc.-level) corresponding to a minimum of four years in the Norwegian educational system.
- Fluent oral and written communication skills in English.

Candidates without a master's degree have until **June 30, 2026** to complete the final exam.

Desired qualifications:

- Programming experience in Python/IDL/Julia, C/C++ or Fortran
- Personal suitability and motivation for the position

Language requirement:

- Good oral and written communication skills in English
- English requirements for applicants from outside of EU/ EEA countries and exemptions from the requirements: https://www.mn.uio.no/english/research/phd/regulations/regulations.html#toc8

Grade requirements:
The norm is as follows:

- The average grade point for courses included in the Bachelor's degree must be C or better in the Norwegian educational system
- The average grade point for courses included in the Master's degree must be B or better in the Norwegian educational system
- The Master's thesis must have the grade B or better in the Norwegian educational system

The purpose of the fellowship is research training leading to the successful completion of a PhD degree. For more information see: http://www.mn.uio.no/english/research/phd/

All candidates and projects will have to undergo a check versus national export, sanctions and security regulations. Candidates may be excluded based on these checks. Primary checkpoints are the Export Control regulation, the Sanctions regulation, and the national security regulation.

What are we looking for in you?

Personal skills:

- Ability to work both independently and as part of a team
- Ability to work precise in a structured manner and swiftly adapts to new tasks
- Good communication and collaboration skills
- Positive attitude and the ability to handle hectic periods

Employment in the position is based on a comprehensive assessment of all qualification requirements applicable to the position, including personal qualifications.

We can offer you

- A pleasant and stimulating work environment
- Good welfare schemes
- Opportunity of up to 1.5 hours a week of exercise during working hours
- A workplace with good development and career opportunities
- Career development programmes
- Membership in the Statens Pensjonskasse, which is one of Norway's best pension schemes with beneficial mortgages and good insurance schemes
- Oslo's family-friendly surroundings with their rich opportunities for culture and outdoor activities
- Salary in position as PhD Research Fellow, position code 1017 in salary range NOK from 550 800 - 595 000, depending on competence and experience. From the salary, 2 percent is deducted in statutory contributions to the State Pension Fund

We need different perspectives in our work

UiO is an open and internationally oriented comprehensive university that strives to be an inclusive and diverse workplace and academic environment. You can read more about UiO's work on equality, inclusion, and diversity at uio.no.

We fulfill our mission most effectively when we draw upon our variety of experiences, backgrounds, and perspectives. We are looking for great colleagues, could you be the next one?

We will do our best to accommodate your needs. Relevant adjustments may include modifications to working hours, task adaptations, digital, technical, or physical adjustments, or other practical measures.

We especially encourage women to apply.

If you have an immigrant background, a disability, or CV gaps (Norwegian), we encourage you to indicate this in the job application portal. We always invite at least one qualified candidate from each group for an interview. In this context, disability is defined as an applicant who identifies as having a disability that requires workplace or employment-related accommodations. For more details about the requirements, please refer to the Employer portal (Norwegian).

The selections made in the job application portal are used for anonymized statistics that all state employers include in their annual reports. More information about gender equality initiatives at UiO can be found here.

We hope you will apply for the position with us.

How to apply

The application must include:

- Cover letter - statement of motivation and research interests
- CV (summarizing education, positions and academic work - scientific publications)
- Transcripts of records, copies of the original Bachelor and Master's degree diploma (see below)
- Documentation of English proficiency if applicable
- List of publications and academic work that the applicant wishes to be considered by the evaluation committee
- Names and contact details of 2-3 references (name, relation to candidate, e-mail and telephone number) and reference letters. The letters should be sent directly to prof. Luc van der Voort, e-mail: rouppe@astro.uio.no by the application deadline.

Application with attachments must be submitted via our recruitment system Jobbnorge, click "Apply for this job". Foreign applicants should attach an official explanation of their University's grading system.

When applying for the position, we ask you to retrieve your education results from Vitnemålsportalen.no. If your education results are not available through Vitnemålsportalen, we ask you to upload copies of your transcripts or grades. Please note that all documentation must be in English or a Scandinavian language.

General information
The best qualified candidates will invited for interviews.

Applicant lists can be published in accordance with Norwegian Freedom of Information Act § 25. When you apply for a position with us, your name will appear on the public applicant list. It is possible to request to be excluded from this list. You must justify why you want an exemption from publication and we will then decide whether we can grant your request. If we can't, you will hear from us.

Please refer to Regulations for the Act on universities and colleges chapter 3 (Norwegian), Guidelines concerning appointment to post doctoral and research posts at UiO (Norwegian) and Regulations for the degree of Philosophiae Doctor (PhD) at the University of Oslo.

The University of Oslo has a transfer agreement with all employees that is intended to secure the rights to all research results etc.

About the University of Oslo

The University of Oslo is Norway's oldest and highest rated institution of research and education with 26 500 students and 7 200 employees. Its broad range of academic disciplines and internationally esteemed research communities make UiO an important contributor to society.

The Rosseland Centre for Solar Physics is situated at the Institute of Theoretical Astrophysics, the Faculty of Mathematics and Natural Sciences.

Additional information

Contact persons:
- Luc Rouppe van der Voort, Professor
  Phone: | E-mail: l.r.van.der.voort@astro.uio.no
- For questions regarding the recruitment system, please contact Karoline Hanssen , HR Consultant
  Phone: | E-mail: karoline.hanssen@mn.uio.no

Place of service:
Problemveien 7 0313 Oslo (Oslo Municipality)